

Abstract

This light aeroplane at the same time fulfilled the weight limits for the European ultra light class or acolyte class as do at the same time for the US-American sport plan Category. It comprises an engine arranged at the nose and is provided with tractor airscrew and the cabin cell that is arranged behind the engine and is wide enough for two adjacent passenger seats. A central tube (1) with a 200 mm diameter extends forwards towards the engine and to the rear at least behind the front edge of the lateral rudder and elevator control. Everything else is constructed around said tube. A square profiled element (12) is transversally guided edgewise beneath the central tube (1) and is rigidly connected to the same in a positively engaged manner. An upwardly projecting tube bend (11), which arches over the length of the square profiled element is fixed to the rear side of the square profiled element (12) with the ends thereof. The level of a virtual plane cabin floor is defined above the square profile (12). The free space above said floor is orthorhombic: at least 190cm long, at least 45cm wide and at least 40cm high.

(figure 5)

Directory

1 Central tube

2 Motor mount

3 Laterally perforated square profiled tube for front shock strut

4 Wheel fork at the shock strut

5 Front wheel

6 Central aluminium tube through instruments panel

7 Transverse tube for wing front edge

8 Supporting wings

9 Mouth point of the transverse struts 6 and 7

10 Apex tube in the cabin interior

11 Obliquely backward inclined tube bend

12 Square profile transversely beneath the central tube 12

13 Rear cross-member of the square profiled element 12

14 Front cross-member of the square profiled element 12

15 Diagonal struts on the right side of tube bends 11 at apex tube

16 Diagonal strut at the left side of tube bends 11 at apex tube

17 Fuselage struts

18 Transverse tube for wing trailing edge

19 Rear wing strut

20 Front wing strut

21 Main landing gear

22 Shock strut tube on the right

- 23 Shock strut tube on the left side
- 24 Fixed points the motor mount (thread sleeves)
- 25 Fuel tank
- 26 Stretcher
- 5 27 Circular segment form at square profiled element 12
- 28 Fixing elements for square profile 12
- 29 Supporting rails for seat
- 30 Transverse struts for rail 29
- 31 Shell seat
- 10 32 Transversal boring in the supporting rail
- 33 Front side of the square profile element 12
- 34 Arch profile for border tube bends 11
- 35 Engine
- 36 Propeller flange
- 15 37 Landing flaps
- 38 Ailerons
- 39 Elevator bar
- 40 Elevator bar
- 41 Instruments panel
- 20 42 Central support structure
- 43 Upper side tank
- 44 Engine cover
- 45 Exterior arch profile
- 46 Against the front pointed side of the arch profile
- 25 47 Door
- 48 Gas compression spring
- 49 Front lower edge of the door way
- 50 Foremost edge of the door way
- 51 Handle holes in bier
- 30 52 Mounts for stretcher
- 53 Leg area of the stretcher
- 54 Torso area of the stretcher